IN THE CLAIMS:

Please amend claims 1 and 27 to read as follows:

1. (Previously Presented) In a device for sorting different materials, comprising a conveyor belt and at least one sensor which is assigned to the conveyor belt and senses pieces of material in a location-dependent manner on the conveyor belt, and at least one actuator which sorts out pieces of material in accordance with signals of the at least one sensor in a location-dependent manner, the improvement comprising at least one electromagnetic actuator having at least one energizable coil rotatably suspended about a shaft,

said coil, starting from a ~~basic~~ first position, performing a rotational movement about the shaft in a gap between a pair of first oppositely magnetized permanent magnets to a second position in a gap between a pair of second oppositely magnetized permanent magnets,

a magnetic field in the gap of the second permanent magnets extending opposite in direction to a magnetic field in the gap of the first permanent magnets,

the rotational movement of the coil effecting an actuating operation for sorting out a piece of material.

2. (Previously Presented) The sorting device according to claim 1, wherein the at least one electromagnetic actuator is arranged at a side of the conveyor belt.

3. (Previously Presented) The sorting device according to claim 1, wherein the at least one electromagnetic actuator is driven in a location-dependent manner so as to pivot an ejector connected to the actuator into the transport path of a respective sensed piece of material for sorting out the piece of material.

4. (Previously Presented) The sorting device according to claim 3, wherein the at least one electromagnetic actuator is arranged at the end of the conveyor belt at an outlet side, and wherein the ejector is pivotable into the transport path of the respective sensed piece of material.

5. (Previously Presented) The sorting device according to claim 1, wherein windings of the coil extend in planes which are positioned substantially perpendicular to the shaft.

6. (Previously Presented) The sorting device according to claim 1, wherein the permanent magnets are made from neodymium-iron boron.

7. (Previously Presented) The sorting device according to claim 1, wherein the permanent magnets ~~(6)~~ are formed as plate-like ring segments.

8. (Previously Presented) The sorting device according to claim 7, wherein an inner radius and an outer radius of the ring segments have their origin at the shaft.

9. (Previously Presented) The sorting device according to claim 5, wherein the coil comprises two legs which are radially oriented relative to the shaft.

10. (Previously Presented) The sorting device according to claim 1, wherein the coil is held on a carrier which is suspended from the shaft, the end of the carrier opposite to the coil forming an ejecting member.

11. (Previously Presented) The sorting device according to claim 1, wherein each of the permanent magnet pairs are held at one side and at an opposite side of the gap, respectively, on a base plate, the base plates of the magnet pairs forming parts of an exterior housing structure.

12. (Previously Presented) The sorting device according to claim 11, wherein a bearing in which the shaft is mounted is provided in each base plate.

13. (Previously Presented) The sorting device according to claim 11, wherein the coil is supplied with current by means of silicone-coated stranded wires.

14. (Previously Presented) The sorting device according to claim 12, wherein a respective stranded wire is arranged at each side of the carrier and connected to the housing structure.

15. (Previously Presented) The sorting device according to claim 11, wherein the base plates are spaced apart by a housing wall enclosing the coil and the permanent magnets.

16. (Previously Presented) The sorting device according to claim 1, wherein at least one further pair of third oppositely magnetized permanent magnets is provided of opposite pole to the pair of second permanent magnets, with a gap thereinbetween, and a further coil is provided, said further coil being offset relative to the first coil such that it is positioned closer to the pair of third permanent magnets and is energized whenever a rotational movement takes place from the pair of second permanent magnets to the pair of third permanent magnets.

17. (Previously Presented) The sorting device according to claim 16, wherein the position of the coils between the respective pairs of permanent magnets is used for an actuating operation.

18. (Previously Presented) The sorting device according to claim 1, wherein the first and second pairs of permanent magnets extend over a sector of about 90°.

19. (Previously Presented) The sorting device according to claim 16, wherein the three pairs of permanent magnets extend over a sector of between 120° and 180°.

20. (Previously Presented) The sorting device according to claim 1, wherein in the basic position the coil is energized by a voltage of a given polarity and the polarity thereof is reversed for movement from the basic position into the second position.

21. (Previously Presented) The sorting device according to claim 20, wherein the coil is energized for a return movement from the second position into the first position.

22. (Previously Presented) The sorting device according to claim 13, wherein the electromagnetic actuator is arranged in a housing, and wherein the respective stranded wire is arranged in a loop having a length several times the direct connection path between a connection point at the coil and a connection point at the housing.

23. (Previously Presented) The sorting device according to claim 1, wherein a plurality of electromagnetic actuators are arranged side by side, forming a modular unit.

24. (Previously Presented) The sorting device according to claim 23, wherein the shafts of the individual

electromagnetic actuators from which the coils are suspended are positioned along a straight line.

25. (Previously Presented) The sorting device according to claim 4, wherein the at least one sensor senses pieces of material in a location-dependent manner on the conveyor belt and, in accordance with signals of the sensor, corresponding actuators of a modular unit arranged behind the end of the conveyor belt at the outlet side are driven in a location-dependent manner to pivot an ejector connected to the respective actuator into the transport path of the respective sensed piece of material.

26. (Canceled).

27. (Currently Amended) A method of sorting different materials using a comprising a conveyor having a conveyor belt comprising at least one sensor which is assigned to the conveyor belt and senses pieces of material in a location-dependent manner on the conveyor belt, and at least one actuator which sorts out pieces of material in accordance with signals of the at least one sensor in a location-dependent manner, said method comprising the steps of:

(a) placing metal parts on the conveyor belt;

(b) sensing the presence and position of said metal parts;

(c) conveying the metal parts to at least one electromagnetic actuator having at least one energizable coil rotatably suspended about a shaft,

said coil starting from a ~~basic~~ first position, performing a rotational movement about the shaft in ~~a~~ gap between a pair of first oppositely magnetized permanent magnets to a second position in a gap between a pair of second oppositely magnetized permanent magnets,

a magnetic field in the gap of the second permanent magnets extending opposite in direction to a magnetic field in the gap of the first permanent magnets,

the rotational movement of the coil effecting an actuating operation for sorting out the metal parts; and

(d) energising the at least one electromagnetic actuator to remove selected ones of the metal parts.